

REMARKS

Claims 1-30 are pending in the subject application. Claims 1, 9-13, 21, 23, and 24 stand rejected under 35 U.S.C. 102(b). Claims 2-8, 14-20, 22, 24, and 25 stand rejected under 35 U.S.C. 103(a). Claims 1-12 and claims 16-23 further stand rejected under 35 USC 112, first paragraph. Claims 1, 2, 11, 13, and 14 have been amended. Claims 26-30 have been newly added.

The Applicants appreciate the Examiner's thorough examination of the subject application and respectfully request reconsideration of the subject application based on the above amendments and the following remarks.

35 U.S.C. § 112, FIRST PARAGRAPH REJECTIONS

Claims 1-12 and 16-23 stand rejected under 35 USC 112, first paragraph allegedly because the specification "does not reasonably provide enablement for the optical control devices and optical control device method" that does not use backlighting. The Applicants have amended the claims and now believe that the grounds for rejection are moot. As such, the Applicants believe that claims are allowable. Moreover, it is respectfully submitted that the subject application is in condition for allowance. Early and favorable action is requested.

35 U.S.C. § 102(b) REJECTIONS

The Examiner has rejected claims 1, 9-13, 21, 23, and 24 under 35 USC 102(b) as being anticipated by U.S. Patent Number 5,402,143 to Ge, et al. ("Ge" or the "Ge Reference"). The Applicants respectfully traverse these rejections in view of the above amendments and for reasons detailed below.

As provided in our previous response, the Ge reference teaches a "hold type" display device that combines a liquid crystal device ("LCD") for controlling light

transmittance with an electro-luminescence device ("ELD") that provides back lighting. The ELD comprises a cathode 90 and grid electrodes, which are divided into sub-chambers. See, e.g., Ge, col. 5, lines 44-51. Control means applies voltage to the cathode and grid electrodes so that light from the ELD is emitted to the LCD at the same time that the row (scan or gate) electrodes 54 of the LCD are being scanned. See, e.g., Id., col. 5, lines 51-58. Thus, Ge does not control the ELD so that the light output layers shine "after a complete set of data signals for each scan line is transmitted to the gate electrodes and extinguish before a succeeding complete set of data signals for each scan line is transmitted." On the contrary, Ge discloses that the light output layer, i.e., cathode and grid electrodes, shine "towards [] the row electrodes 54 which are being scanned at the same time." See, e.g., Id., col. 5, lines 56-58 (emphasis added).

According to the invention as claimed,

The light output layers 4 are not allowed to shine while the electrodes 9, 10 are transmitting signals to send a display content to the liquid crystal part. The light output layers 4 are allowed to shine only after the liquid crystal part is in a state matched to the display content, that is, only after the liquid crystal 3 has sufficiently responded to the signals.

Specification, page 20, lines 12-19 (emphasis added); Cf., Id, page 23, lines 7-19. Thus, no light from the ELD is transmitted until every scan line, i.e., G1 to Gn, has been scanned and received its signal. This feature of the present invention is recited in claim 2 but not taught by Ge.

Thus, it is respectfully submitted that, claims 1, 9-13, 21, 23, and 24 are not anticipated by Ge and, further, satisfy the requirements of 35 U.S.C. 100, et seq., especially § 102(b). As such, the Applicants believe that claims 1, 9-13, 21, 23, and 24 are allowable. Moreover, it is respectfully submitted that the subject application is in condition for allowance. Early and favorable action is requested.

35 U.S.C. § 103(a) REJECTIONS

The Examiner has rejected claims 2-4, 14-20, 22, and 25 under 35 USC 103(a) as being unpatentable over Ge in view of U.S. Patent Number 5,572,341 to Fergason ("Fergason" or the "Fergason Reference"); claim 5 under 35 USC 103(a) as being unpatentable over Ge in view of U.S. Patent Number 5,760,858 to Hodson, et al. ("Hodson" or the "Hodson Reference"); claim 6 under 35 USC 103(a) as being unpatentable over Ge in view of Fergason further in view of Hodson; claim 7 under 35 USC 103(a) as being unpatentable over Ge in view of U.S. Patent Number 5,535,027 to Kimura, et al. ("Kimura" or the "Kimura Reference"); and claim 8 under 35 USC 103(a) as being unpatentable over Ge in view of Fergason further in view of Kimura. The Applicants respectfully traverse these rejections for reasons detailed below.

Claims 2-4, 14-20, 22, and 25

As provided above, the Ge reference teaches a "hold type" display device that combines an LCD for controlling light transmittance with an ELD that provides back lighting. Control means applies voltage to the cathode and grid electrodes so that light from the ELD is emitted to the LCD at the same time that the row (scan or gate) electrodes 54 of the LCD are being scanned. See, e.g., Id., col. 5, lines 51-58. Thus, Ge does not control the ELD so that the light output layers shine "after a complete set of data signals for each scan line is transmitted to the gate electrodes and extinguish before a succeeding complete set of data signals for each scan line is transmitted." On the contrary, Ge discloses that the light output layer, i.e., cathode and grid electrodes, shine "towards [] the row electrodes 54 which are being scanned at the same time." See, e.g., Id., col. 5, lines 56-58 (emphasis added). As a result, no light from the ELD is transmitted until every scan line, i.e., G1 to Gn, has been scanned and received its signal. Nor can the Fergason reference make up for the deficiencies of the Ge because the Fergason reference does not teach, mention or suggest controlling light output layers to shine after a complete set of scanning signals and extinguish before the next complete set of scanning signals.

Accordingly, claims 2-4, 14-20, 22, and 25 are not made obvious by Ge in view of Ferguson and, further, satisfy the requirements of 35 U.S.C. 100, et seq., especially § 103(a). As such, the Applicants believe that the claims and all claims depending therefrom are allowable. Moreover, it is respectfully submitted that the subject application is in condition for allowance. Early and favorable action is requested.

Claim 5

For the same reasons provided above that the Ge reference does not anticipate or make obvious claim 2 of the present invention, the Ge reference also does not make claim 5 obvious. Nor can the Hodson reference make up for the deficiencies of the Ge reference. Indeed, the Hodson reference does not teach, mention or suggest controlling light output layers to shine after a complete set of scanning signals and extinguish before the next complete set of scanning signals. Therefore, it is respectfully submitted that, claim 5 is not made obvious by Ge in view of Hodson and, further, satisfies the requirements of 35 U.S.C. 100, et seq., especially § 103(a). As such, the Applicants believe that claim 5 is allowable. Moreover, it is respectfully submitted that the subject application is in condition for allowance. Early and favorable action is requested.

Claim 6

For the same reasons provided above that the Ge and Ferguson references do not make obvious claim 2 of the present invention, Ge and Ferguson further in view of Hodson do not make claim 6 obvious. Nor can the Hodson reference make up for the deficiencies of the Ge and Ferguson references. Indeed, the Hodson reference does not teach, mention or suggest controlling light output layers to shine after a complete set of scanning signals and extinguish before the next complete set of scanning signals. Therefore, it is respectfully submitted that, claim 6 is not made obvious by Ge in view of Ferguson further in view of Hodson and, further, satisfies the requirements of 35 U.S.C. 100, et seq., especially § 103(a). As such, the Applicants believe that claim 6 is

allowable. Moreover, it is respectfully submitted that the subject application is in condition for allowance. Early and favorable action is requested.

Claim 7

Nor can the Kimura reference make up for the deficiencies of the Ge reference. Kimura discloses a display device having a plurality of luminous sources arrayed in parallel with each other, a plurality of linear electrodes arrayed with each other, wherein the luminous sources are crossed with the linear electrodes, and a plurality of photoconductive layers provided at these crossed positions. See, e.g., Kimura, Abstract. Kimura, however, does not teach, mention or suggest controlling light output layers to shine after a complete set of scanning signals and extinguish before the next complete set of scanning signals. Accordingly, the combination of Ge in view of Kimura does not teach, mention or suggest the present invention.

Therefore, it is respectfully submitted that, claim 7 is not made obvious by Ge in view of Kimura and, further, satisfies the requirements of 35 U.S.C. 100, et seq., especially § 103(a). As such, the Applicants believe that claim 7 is allowable. Moreover, it is respectfully submitted that the subject application is in condition for allowance. Early and favorable action is requested.

Claim 8

For the same reasons provided above that the Ge and Ferguson references do not make obvious claim 2 of the present invention, Ge and Ferguson further in view of Kimura do not make claim 8 obvious. Nor can the Kimura reference make up for the deficiencies of the Ge and Ferguson references. Indeed, the Kimura reference does not teach, mention or suggest controlling light output layers to shine after a complete set of scanning signals and extinguish before the next complete set of scanning signals.

Therefore, it is respectfully submitted that, claim 8 is not made obvious by Ge in view Ferguson further in view of Kimura and, further, satisfies the requirements of

35 U.S.C. 100, et seq., especially § 103(a). As such, the Applicants believe that claim 8 is allowable. Moreover, it is respectfully submitted that the subject application is in condition for allowance. Early and favorable action is requested.

Claims 26-30

Claims 26-30 depend from claims 1, 2, 11, 13, and 14, respectively. The subject matter of claims 26-30 is similar, which is to say that, each includes a limitation to the effect that the light output layer is adjusted in terms of luminance to a maximum luminance for the data signals for each scan line. Support for the new claims is found on pages 26 and 27 of the Specification.

The cited references are silent about a device or a method that includes adjusting the light output layer in terms of luminance to a maximum luminance for the data signals for each scan line. Therefore, it is respectfully submitted that, claims 26-30 are not anticipated by or made obvious by any of the cited references and, further, satisfy the requirements of 35 U.S.C. 100, et seq. As such, the Applicants believe that claims 26-30 are allowable. Moreover, it is respectfully submitted that the subject application is in condition for allowance. Early and favorable action is requested.

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The Applicants believe that no additional fee is required for consideration of the within Response. However, if for any reason the fee paid is inadequate or credit is owed for any excess fee paid, you are hereby authorized and requested to charge Deposit Account No. **04-1105**.

Respectfully submitted,

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